

Neuroimaging Anatomy Preparation

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As will become apparent, structures look very different on actual brain slices than on MR images. As neuroimaging is now a commonly used method to study the brain (and the function of brain regions, using fMRI), this section will help to familiarize you with neuroanatomy as seen on MR images. Before your section, please familiarize yourself with the following website. Also come with any questions that you have about MR methodology. You will be given a short quiz at the beginning of the section.

<http://www.med.harvard.edu/AANLIB/home.html> – (WHOLE BRAIN ATLAS) – This site takes you through MR images of the human brain. Look especially at the Top 100 brain regions. For those of you not familiar with imaging technology (e.g., CT scans, MR scans), you may want to skim the “Neuroimaging Primer” section.

Brain structures to be familiar with (these are terms that will arise frequently in your courses!):

The four lobes
Amygdala
Caudate nucleus
Cingulate gyrus
Corona radiata
Corpus callosum

Fornix
Hippocampus
Hypothalamus
Insular cortex
Mamillary body
Olfactory tract and bulb

Optic nerve and chiasm
Parahippocampal gyrus
Pineal body
Pons
Substantia nigra
Thalamus